



**ENVIROBASE®**  
HIGH PERFORMANCE

PPG's advanced waterborne basecoat system  
**ENGINEERED FOR EXCELLENCE**



# Product Information

## En-V Performance Clearcoat

## LVC-136

### PRODUCTS

En-V Performance Clearcoat	LVC-136
Low VOC Hardener	LVH-320
Low VOC Thinners	LVT-430; LVT-420; LVT-410
Low VOC Clearcoat Accelerator Thinner	LVT-444

### PRODUCT DESCRIPTION

En-V Performance Clearcoat is a premium Ultra High Solids polyurethane clearcoat specifically formulated for use as a premium re-spray clear over ENVIROBASE® High Performance basecoat. However, when used in conjunction with LVT-444, the single visit application mode and 15 minute bake time can be utilised.

### PREPARATION OF SUBSTRATE



En-V Performance Clearcoat may only be applied to clean and dust free ENVIROBASE® High Performance basecoat. The use of a clean tack rag is highly recommended to remove dust from the basecoat film.



Fully cured PPG Refinish Clearcoats that have been degreased and sanded  
Sound OEM Clearcoats that have been degreased and sanded

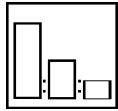
***Substrates other than those stated should be tested before use, to ensure that the performance of the product is suitable for its intended use.***

## Application Guide

### Mixing Ratio PRODUCT

LVC-136

LVH-320



### THINNER

LVT- 4XX Thinner

### PARTS

3 VOLUME

1 VOLUME

0.6 - 1 VOLUME

Thinner choice is dependant on temperature and the size of the area being coated.

**NOTE:** Where the temperature exceeds 35°C LVT-405 must be used

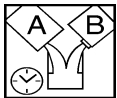
As is usual with UHS type clearcoats, cold product temperatures can lead to difficult application and overspray absorption. To avoid this it is recommended that ready for use product is applied at above 15°C

### HARDENER AND THINNER SELECTION

System	Hardener	Thinner	Bake time
Express	LVH-320	LVT-444	15 mins at 60°C
Standard	LVH-320	LVT-410	25 mins at 60°C
Up to 35°C	LVH-320	LVT-420 or LVT-410	25 mins at 60°C
Standard (above 35°C)	LVH-320	LVT-405	25 mins at 60°C

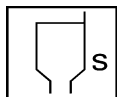
The choice of thinner is made relevant to the application temperature, air movement and the size of the area being clearcoated.

### POTLIFE @ 20°C



1 hour

### SPRAY VISCOSITY @ 20°C



18 - 20 Seconds (DIN4)

### SPRAYGUN SETUP



1.2mm - 1.3mm  
(SATA 1.2 RP suggested)

### SPRAY PRESSURE

HVLP / RP

2 – 3 bar

CONVENTIONAL

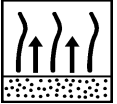
30 – 45 PSI / 200-300 KPA

## NUMBER OF COATS & FLASH OFF



*Standard mode*

Apply 2 full wet coats (50-60um)



Flash between coats

5 mins

Flash off before bake or IR

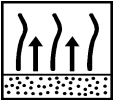
none required, but not more that 5 minutes

## NUMBER OF COATS & FLASH OFF



*Express mode, single visit*

Apply 1 medium & 1 full wet coat (50-60µm)  
Coat 1 should be applied to complete area  
before 2nd coat is applied



Flash between coats

Less than 3 panels 2-3 minutes

Flash off before bake or IR

more than 3 panels no flash required  
none required, but not more that 5 minutes

## CURING GUIDE

Through dry at 60°C\*

15 minutes LVH-320 and LVT-444

25 minutes with LVH-320 and LVT-4XX

Through dry with IR  
(medium wave)

8-15 minutes (dependant on colour)

Metal temperature 90°C-100°C



Bake times are quoted at metal temperature. Additional time may be required if the metal is slow to reach the recommended temperature.

### Important curing notes:

UHS clearcoats cure in a different manner than conventional MS or HS clears. This is normally noticed immediately after bake. UHS clears can feel soft and may finger print up to 1 hour after bake. THIS IS NORMAL. Finger prints and even masking tape marks will disappear within minutes of being marked. Vehicles may be assembled and polished as if using conventional clears as this will not effect the service time in any way.

## OVERCOAT / RECOAT TIME



**Sanding**

Essential before recoating to ensure good adhesion

P500 (dry)

## OVERCOAT / RECOAT TIME

- Force dry 60°C or IR

After cooling

- Air dry at 20°C

Minimum 12 hours



## POLISHING

If polishing is required, i.e. to remove dirt nibs, it is recommended that it is carried out between 1 hour and 24 hours after the quoted drying time.

Denib with P1200, followed by P1500 dry disc.

Dampen an Abralon 3000 disc or similar with clean water ensuring that the P1500 scratches are eliminated.

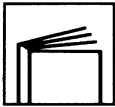
It is important to polish at minimum speed, to avoid the surface becoming too hot.

If necessary, allow the panel to cool down before to polish.

## EQUIPMENT CLEANING

After use, clean all equipment thoroughly with cleaning solvent or thinner.

## HEALTH AND SAFETY



**Please refer to Material Safety Data Sheets for full Health and Safety details and product can labels.**

Global Hardeners and activated En-V Performance Clearcoat contain isocyanate and therefore particular safety precautions must be taken.

Goggles must be worn when mixing and using to prevent accidental splashing into the eye. If contact occurs with eyes give prolonged irrigation with water and get medical attention immediately.

Good ventilation and extraction must be provided in the working environment.

Wear suitable protective equipment to prevent skin contact with this material.

When spraying this product the operator (and persons in vicinity) must wear suitable air-fed breathing apparatus.

Do not smoke whilst using this material.

This product is for professional use only.  
The information given in this sheet is for guidance only. Any person using the product without first making further inquiries as to the suitability of the product for the intended purpose does so at his own risk and we can accept no liability for the performance of the product or for any loss or damage (other than death or personal injury resulting from our negligence) arising out of such use. The information contained in this sheet is liable to modification from time to time in the light of experience and our policy of continuous product development. Drying times quoted are average times at 20°C/68°F. Film thickness, humidity and shop temperature can all affect drying times.



PPG INDUSTRIES AUSTRALIA PTY LIMITED  
McNaughton Road  
Clayton VIC Australia 3168  
Tel: 13 2424  
Fax: 1800 800 819  
PPG INDUSTRIES NEW ZEALAND PTY LIMITED  
5 Vestey Drive Mt. Wellington  
Auckland New Zealand  
Tel: 0800 320 320  
Fax: 0800 320 322